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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/692,365
Filing Date: October 19, 2000
Appellant(s): KIRBY ET AL.

Lisa L.B. Yociss
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/18/2005 appealing from the Office action mailed 06/17/2005.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

The following grounds) of rejection are applicable to the appealed claims:

Claims 1-10 and 15-27 are rejected under 35 U.S.C.§102(e) and claims 11-14 are rejected under 35 U.S.C. 103(a). This rejection is set forth in a prior Office Action, mailed on 06/17/2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 15-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Pelissier et al. (hereinafter Pelissier)(US 6, 496, 503).

Referring to claim 1,

The reference Pelissier teaches a method in a network computing system for managing configuration information for a set of components in a network computing system, the method comprising: storing the configuration information for the set of components in the network computing system to form stored configuration information; responsive to a power cycle, obtaining current configuration information from the set of components; (col. 4, lines 23-44), comparing the current configuration information with the stored configuration information to form a comparison; updating the stored configuration information if a difference is present in the comparison. (Fig. 4, col. 8, lines 46-67 and col. 9, lines 1-58).

Referring to claim 2,

The reference teaches the network 100 of Fig. 1 wherein the network computing system is a system area network. (Fig. 1, col.3, lines 55-60).

Referring to claim 3,

The reference teaches Central Network Manager (subnet manager) could be provided as a separate device that is connected to one or more switches, could be included in a switch or could a be a software application that runs on one of the computers or end stations. (col. 4, lines 30-34). (storing the configuration information at a node in the network computing system where the subnet manager resides.)

Referring to claim 4,

The reference teaches a management cell can be used to query or update data objects in a targeted device. A data object is a group or collection of data in the device which may be accessed as a unit, such as a forwarding database or a MAC address for the device. (col.8, lines 55-61). Thereby, it teaches storing configuration information associated with a component along with the component.

Referring to claim 5,

The reference teaches Fig. 1 is a block diagram illustrating a network according to an embodiment of the present invention. Network 100 may be a system area network (SAN), local area network (LAN), or other data network or packet switched network. Network 100 includes several end stations including computers 102 and 104, a server 106 and an input/output (I/O) device 108, which may be a hard disk drive, a tape drive, a CD ROM, etc. The end stations provided in the network 100 can be a wide variety of computers, servers, I/O devices or other devices. Fig. 1, col. 3, lines 58-65). The reference also teaches Central Network Manager (subnet manager) could be provided as a separate device that is connected to one or more switches, could be included in a

switch or could a be a software application that runs on one of the computers or end stations. (col. 4, lines 30-34). Thereby, the reference teaches the stored configuration information is stored in one of a non-volatile random access memory, a hard disk drive, and an optical disk.

Referring to claims 6 an 7,

The reference teaches the system with the set of components are a set of nodes and the set of components are a set of devices within nodes. (Fig. 1, col. 3, lines 58-67).

Referring to claim 8,

In addition to the above, the reference Pelissier teaches the central network manager to route management cells to specific devices in an unconfigured or partially configured network using explicit routing to initialize or configure each device. After the devices in the network have been configured or initialized, subsequent cells can be routed through the newly configured devices using the more efficient destination address routing technique because each device now has a forwarding database. Thus, the present invention allows the appropriate routing technique to be selected based on the particular situation. (col. 2, lines 66-67 and col. 3, lines 1-8) (a method in a network computing system for managing configuration information in the network computing system, the method comprising: discovering a component at a location on the network computing system; determining whether the component was previously in the location; configuring the component using previously stored configuration information for the component if the component was previously in the location; and configuring the component without the previously stored configuration information.)

Referring to claims 9 and 10,

In addition to the above, the reference Pelissier teaches the central network manager to route management cells to specific devices in an unconfigured or partially configured network using explicit routing to initialize or configure each device. After the devices in the network have been configured or initialized, subsequent cells can be routed through the newly configured devices using the more efficient destination address routing technique because each device now has a forwarding database. Thus, the present invention allows the appropriate routing technique to be selected based on the particular situation. (col. 2, lines 66-67 and col. 3, lines 1-8) (A method in a network computing system for managing configuration information the network computing system, the method comprising: discovering a component at a location on the network computing system; determining whether stored configuration information is present at the component). The reference also teaches querying and updating the configuration as shown and described in Fig. 4, col. 8, lines 46-67 and col. 9, lines 1-58. (responsive to the stored configuration information being present at the component, reading the stored configuration information; configuring the stored configuration information; determining whether changes to a configuration of the component are present; and responsive to changes being present, updating the changes to the stored configuration information in the component, and correcting for conflicts in the configuration of the component using the stored configuration information to form changed configuration information; saving the changed configuration information at the component.)

Referring to claim 15,

Claim 15 is a claim to a network computing system for managing configuration information in accordance with the method steps of claim 1. Therefore, claim 15 is rejected for the reasons set forth for the claim 1.

Referring to claim 16,

Claim 16 is a claim to a network computing system for managing configuration information in accordance with the method steps of claim 2. Therefore, claim 16 is rejected for the reasons set forth for the claim 2.

Referring to claim 17,

Claim 17 is a claim to a network computing system for managing configuration information in accordance with the method steps of claim 3. Therefore, claim 17 is rejected for the reasons set forth for the claim 3.

Referring to claim 18,

Claim 18 is a claim to a network computing system for managing configuration information in accordance with the method steps of claim 4. Therefore, claim 18 is rejected for the reasons set forth for the claim 4.

Referring to claim 19,

Claim 19 is a claim to a network computing system for managing configuration information in accordance with the method steps of claim 5. Therefore, claim 19 is rejected for the reasons set forth for the claim 5.

Referring to claims 20 and 21,

Claims 20 and 21 are claims to a network computing system for managing configuration information in accordance with the method steps of claims 6 and 7. Therefore, claims 20 and 21 are rejected for the reasons set forth for the claims 6 and 7.

Referring to claim 22,

Claim 22 is a claim to a network computing system for managing configuration information in accordance with the method steps of claim 8. Therefore, claim 22 is rejected for the reasons set forth for the claim 8.

Referring to claim 23 and 24,

Claims 23 and 24 are claims to a network computing system for managing configuration information in accordance with the method steps of claims 9 and 10. Therefore, claims 23 and 24 are rejected for the reasons set forth for the claims 9 and 10.

Referring to claim 25,

Claim 25 is a claim to a computer program product in a computer readable medium for use in a network computing system for managing configuration information for a set of components in a network computing system which performs the steps of the method of claim 1. Therefore, claim 25 is rejected for the reasons set forth in claim 1.

Referring to claim 26,

Claim 26 is a claim to a computer program product in a computer readable medium for use in a network computing system for managing configuration information for a set of components in a network computing system which performs the steps of the method of claim 8. Therefore, claim 26 is rejected for the reasons set forth in claim 8.

Referring to claim 27,

Claim 27 is a claim to a computer program product in a computer readable medium for use in a network computing system for managing configuration information for a set of components in a network computing system which performs the steps of the method of claim 9. Therefore, claim 27 is rejected for the reasons set forth in claim 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shah et al. (hereinafter Shah) (US 6,694, 361) in view of Pelissier et al. (hereinafter Pelissier)(US 6, 496, 503).

Referring to claim 11,

The reference Shah teaches a bus system; a channel adapter unit connected to a system area network fabric; a memory connected to the bus system, wherein the memory includes as set of instructions; and a processing unit connected to the bus system (Fig. 4). The reference fails to explicitly teach the processing unit executes the set of instructions to store the configuration information for the set of components in the network computing system to form stored configuration information; obtain current configuration information from the set of components responsive to a power cycle; compare the current configuration information with the stored configuration information

to form a comparison; and update the stored configuration information if a difference is present in the comparison. The reference Pelissier teaches this system by teaching central network manager and its functions. (Fig. 1, col. 2, lines 43-67 and col.3, lines 1-8 and lines 55-67, col. 4, lines 1-44, Fig. 4, lines 46-67 and col. 9, lines 1-58). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to combine Shah with Pelissier such that the system is made applicable to various type of computer networks such as LAN, CAN, MAN, GAN, SAN and many more as indicated by Shah in col. 2, lines 31-55.

Referring to claims 12 and 13,

The reference Shah teaches the processing unit the processor unit includes a set of processors or a single processor. (Fig. 4, col. 4, lines 66-67 and col. 5, lines 1-4).

Referring to claim 14,

The reference Shah teaches wherein the bus system includes a primary bus and a secondary bus. (Fig. 3)

(7) Argument

The statement of the arguments contained in the brief is correct.

(8) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Response to Argument

A. (GROUND OF REJECTION 1 (Claims 1-10 and 15-27)

Claims 1, 11, 15 and 25:

Appellant's argument:

"Pelissier does not teach obtaining current configuration information from a set of components in a network computing system in response to a power cycle, comparing the current configu'ation information with stored configuration information to form a comparison, or updating stored configuration information if a difference is present in the comparison."

"Nowhere in Pelissier is there any teaching that, responsive to a power cycle, current configuration information from a set of components in a network computing system is obtained and compared to stored configuration information to determine if there are differences and, if there are, the stored configuration information is updated."

"The only comparison even mentioned in Pelissier is the comparison of a hop pointer to a hop count to determine if a cell has reached the end of an explicit route (column 11, lines 17-19). This does not compare current configuration information for a set of components in a network computing system to stored configuration information of the set of components. It is merely a comparison of a hop count to a maximum number of hops value."

"Applicant claim comparing the current configuration information with the stored configuration information to form a comparison. Pelissier does not teach a comparison."

"Nothing in this section of Pelissier teaches any comparison of current configuration information obtained in response to a power cycle, to store configuration information for a set of components of a network computing system. Nothing in this section of Pelissier teaches anything regarding updating stored configuration information for a set of components of a network computing system if a difference is found in a comparison of current configuration information with stored configuration information."

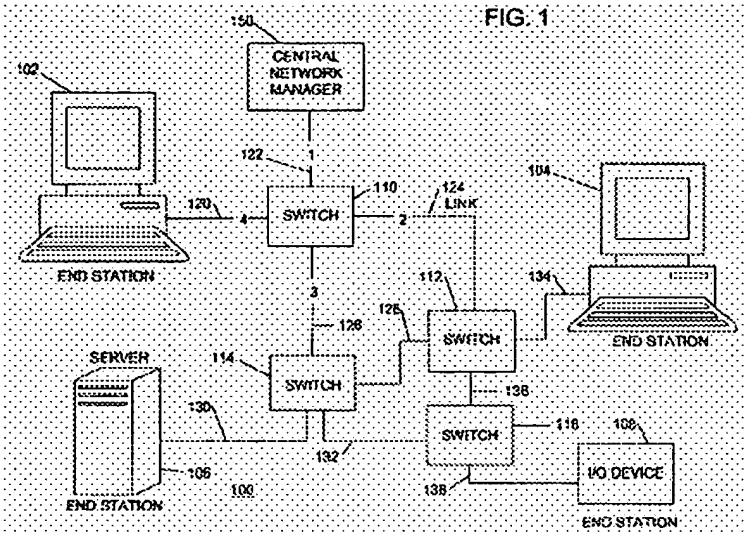
Examiner's response:

In order to understand how Pelissier teaches the limitations of claims 1, 11, 15 and 25,

examiner would like to present Pelissier's teachings step by step.

Step 1:

FIG. 1



As depicted in Fig. 1, Pelissier teaches "Central Network Manager", element 150 and reveals this Central Network Manager's responsibilities as indicated below.

Pelissier teaches in col. 2, line 43 through col. 3, line 6, "According to an embodiment of the invention, **one or more devices in a network are initially unconfigured or un-initialized**. That is, the devices in **the network power-up without** individual addresses assigned to them and **without** a forwarding database (as examples). To permit the use of simpler and less expensive switches or devices in the network, each device is not responsible for learning the topology of the network or generating their own forwarding databases. Rather, a central network manager is responsible for discovering the topology of the network, assigning addresses to each device, generating forwarding databases for each device, and then initializing each device by providing the assigned address and the forwarding database to each device for storage.

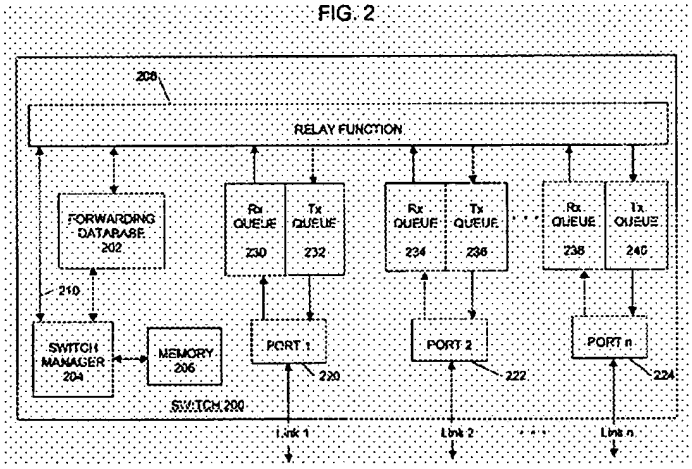
For the central network manager to perform its various management functions, a technique must be provided that allows the central network manager to route management cells throughout a network or fabric whose configuration is unknown. The more efficient destination address routing technique cannot be reliably used to route cells in an unconfigured or partially configured network because some or all of the devices in the network do not yet have a forwarding database.

The present invention allows the central network manager to route management cells **to specific devices** in an **unconfigured or partially configured** network using explicit routing **to initialize or configure each device**. After the devices in the network have been configured or initialized, subsequent cells can be routed through the newly configured devices using the more efficient destination address routing technique because each device now has a forwarding database."

By this, **the configuration of specific devices or each of the devices in the network by the central network manger** is understood.

Step 2:

FIG. 2



As taught by Pelissier in col. 4, line 45-50, "FIG. 2 is a block diagram illustrating **a switch** according to an embodiment of the present invention. Switch 200 includes a switch manager 204 (which may be logic or a processor) for managing certain functions of the switch 200, a memory 206 connected to the switch manager 204 and **a forwarding database 202** (also known as a routing table)."

By this, the configuration of **specific devices or each of the devices in the network** by the central network manger among other things include the configuration of their "FORWARDING DATABASE ", element 202, is understood.

Step 3:

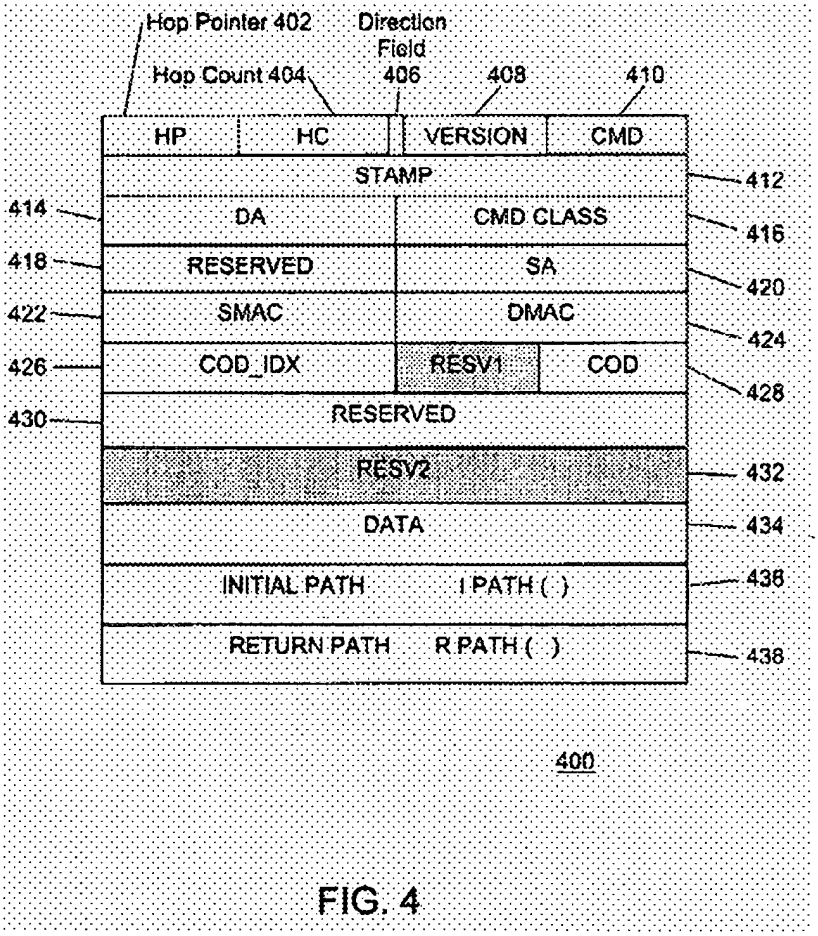


FIG. 4

Pelissier teaches in Fig. 4, and in col. 8, line 46-61, "FIG. 4 illustrates **an example cell format** according to an embodiment of the present invention. There may be at least two types of cells routed through a network, both of which may be routed using either explicit routing or destination address routing. There are data cells which are **standard cells carrying data directed to a particular destination device or computer.** There are also **management cells which are typically sent from the central network manager 150 for performing any of several network management functions (e.g., device initialization, topology discovery). A management cell can be used to query or update data objects in a targeted device. A data object is a group or collection of data in the device which may be accessed as a unit, such as a forwarding database or a MAC address for the device.** FIG. 4 illustrates an example of a cell that could be used for either a data cell or a management cell."

Pelissier discloses in col. 14, line 24-27, "**The new or updated forwarding database is carried in the Data field 434 (FIG. 4) of the management cell."**

Pelissier discloses in col. 11, line 11-58, "**Cell 400** also includes a Common Object Descriptor (COD) 428 which identifies the data object which will be operated on in the target device as specified by the command. Thus, the **COD identifies the collection of data (i.e., the data object) which will be queried or updated in the target device.** ", "All of this information is stored in a device or switched and may be queried or updated by specifying the object using the appropriate COD. Some data objects in a device, such as the device's MAC address and the forwarding database,

can be both read (queried) or updated (written to).", "The **new data used to update** or initialize a data object in a target device is provided in the Data field 434."

"Likewise, a central network manager 150 can read or query a device's forwarding database using the Get( ) command and specifying the FDB COD, and **update or initialize a device's forwarding database** using the Set( ) command and the FDB COD **(providing the updated forwarding database in the Data field 434 of the management cell).** A wide variety of commands and CODs may be used to perform many types of management functions on different data objects in a device. Some examples have been described above, but the present invention is not limited to these examples."

"Thus, using the FDB COD and a specific number for the COD_IDX, the central network manager 150 can query or update a single entry in a device's forwarding database."

By this, the use of these cells "to carry data"(for "**providing the updated forwarding database**) in the Data field 434 of the management cell as well as "performing any of several network management functions (e.g., device initialization, topology discovery).", for **specific devices or each of the devices in the network** by the central network manger is understood.

Step 4:

Pelissier teaches in col. 5, line 8-41, "Directed Routing Directed routing provides a hybrid method of specifying the route of a cell that addresses the limitations stated

above. A directed routed cell may be routed using destination address routing, explicit routing, or a combination of the two.

The destination address routing may be used for the majority of the cells once the network has been configured and is operational. In this way, the communicating devices are freed from the tasks of maintaining routes. Furthermore, cells transition the network more efficiently since forwarding decisions may be made after examining only a small portion of the cell, i.e., the destination address.

An explicit routing mechanism is provided for network configuration, initialization (e.g., assigning network addresses to switches or devices) or re-initialization, fault detection or other circumstances. This greatly simplifies the determination of network topology within a network whose forwarding databases have not been configured or when the databases are in an unknown state. Explicit routing can be used by the central network manager 150 to forward management cells throughout an unconfigured or partially unconfigured network 100. A mechanism is also provided to easily generate a return route. Thus, other devices in the network can easily generate return messages to the central network manager 150.

The **two methods** can be combined to **provide** efficient **means** of **initializing** devices in the network, **detecting faults** in the network, of **detecting** topology **changes,** and to **make** appropriate **changes** to the **forwarding databases as a result.** (Pelissier clearly reveals that "**current configuration information from a set of components in a network computing system is obtained and compared to stored configuration information to determine if there are differences and, if there are,**

the stored configuration information is updated", col. 5, line 8-41) For example, a central network controller or device can send management cells through various explicit routes through the network back to itself, and can identify failed links based on which cells returned successfully."

And finally, by this, the use of these cells "to carry data"(for "**providing the updated forwarding database**) in the Data field 434 of the management cell as well as "performing any of several network management functions (e.g., device initialization, topology discovery).", for **specific devices or each of the devices in the network** wherein "**means** of **initializing** devices in the network, **detecting faults** in the network, of **detecting** topology **changes,** and to **make** appropriate **changes** to the **forwarding databases as a result**" by the central network manger is understood. (And thereby "**responsive to a power cycle, current configuration information from a set of components in a network computing system is obtained and compared to stored configuration information to determine if there are differences and, if there are, the stored configuration information is updated" is understood.)**

Thus, Pelissier clearly teaches "obtaining current configuration information from a set of components in a network computing system in response to a power cycle, comparing the current configu'ation information with stored configuration information to form a comparison, or updating stored configuration information if a difference is present in the comparison.", and "responsive to a power cycle, current configuration information from a set of components in a network computing system is obtained and compared to stored

configuration information to determine if there are differences and, if there are, the stored configuration information is updated." (col. 5, line 8-41)

Appellant's argument:

"Although this section does refer to powering up devices, it does not teach obtaining current configuration information responsive to a power cycle."

"Teaching querying or updating a data object does not teach obtaining current configuration information. And it does not teach obtaining this information responsive to a power cycle.

Examiner's response:

Pelisssier's teachings in col. 12, line 52-63 is substantiated by col.13, line 1-12, in order to understand how Pelissier teaches "obtaining current configuration information responsive to a power cycle.", wherein Pelissier states "Rather, the central network manager 150 is responsible for discovering the topology of the network, assigning MAC addresses to each device, generating forwarding databases for each device, and then downloading or providing the forwarding database to each device for storage. In addition, the network topology can change when devices or communication links are added, removed or relocated, when communication links or devices fail, etc. As such, the central network manager 150 may periodically rediscover the network topology, reassign MAC addresses to devices, and generate updated forwarding databases for each device based on the new network topology."

Claims 8, 22 and 26

Appellant's argument:

"Regarding: independent claims 8, 22 and 26, Pelissier does not teach determining whether a component was previously in a location, configuring the component using previously stored configuration information for the component if the component was previously in the location, or configuring the component without the previously stored configuration information if the component was not previously in the location."

"This section of Pelissier does not teach determining whether a component was previously in a location. Merely querying or updating a data object does not teach determining whether a component was previously in a location."

Examiner's response:

As stated in the steps for explanation of claims 1, 11, 15 and 25, Pelissier clearly discloses in col. 14, line 24-27, "**The new or updated forwarding database is carried in the Data field 434 (FIG. 4) of the management cell."**

Pelissier discloses in col. 11, line 11-58, "**Cell 400** also includes a Common Object Descriptor (COD) 428 which identifies the data object which will be operated on in the target device as specified by the command. Thus, the **COD identifies the collection of data (i.e., the data object) which will be queried or updated in the target device.**" , "All of this information is stored in a device or switched and may be queried or updated by specifying the object using the appropriate COD. Some data objects in a device, such as the device's MAC address and the forwarding database, **can be both read (queried) or updated (written to).**", "The **new data used to update** or initialize a data object in a target device is provided in the Data field 434."

"Likewise, a central network manager 150 can read or query a device's forwarding database using the Get( ) command and specifying the FDB COD, and

update or initialize a device's forwarding database using the Set( ) command and the FDB COD **(providing the updated forwarding database in the Data field 434 of the management cell).** A wide variety of commands and CODs may be used to perform many types of management functions on different data objects in a device. Some examples have been described above, but the present invention is not limited to these examples."

"Thus, using the FDB COD and a specific number for the COD_IDX, the central network manager 150 can query or update a single entry in a device's forwarding database."

Also, as stated above, Pelisssier's teachings in col. 12, line 52-63 is substantiated by col.13, line 1-12, in order to understand how Pelissier teaches "obtaining current configuration information responsive to a power cycle.", wherein Pelissier states "Rather, the central network manager 150 is responsible for discovering the topology of the network, assigning MAC addresses to each device, generating forwarding databases for each device, and then downloading or providing the forwarding database to each device for storage ("determining whether a component was previously in a location, configuring the component using previously stored configuration information for the component if the component was previously in the location,"). In addition, the network topology can change when devices or communication links are added, removed or relocated, when communication links or devices fail, etc. As such, the central network manager 150 may periodically rediscover the network topology, reassign MAC addresses to devices, and generate updated forwarding databases for

each device based on the new network topology." ("or configuring the component without the previously stored configuration information if the component was not previously in the location.")

Additionally, Pelissier teaches in col. 5, line 8-41, "Directed Routing Directed routing provides a hybrid method of specifying the route of a cell that addresses the limitations stated above. A directed routed cell may be routed using destination address routing, explicit routing, or a combination of the two.

The destination address routing may be used for the majority of the cells once the network has been configured and is operational. In this way, the communicating devices are freed from the tasks of maintaining routes. Furthermore, cells transition the network more efficiently since forwarding decisions may be made after examining only a small portion of the cell, i.e., the destination address.

An explicit routing mechanism is provided for network configuration, initialization (e.g., assigning network addresses to switches or devices) or re-initialization, fault detection or other circumstances. This greatly simplifies the determination of network topology within a network whose forwarding databases have not been configured or when the databases are in an unknown state. Explicit routing can be used by the central network manager 150 to forward management cells throughout an unconfigured or partially unconfigured network 100. A mechanism is also provided to easily generate a return route. Thus, other devices in the network can easily generate return messages to the central network manager 150.

The **two methods** can be combined to **provide** efficient **means** of **initializing** devices in the network, **detecting faults** in the network, of **detecting** topology **changes**, and to **make** appropriate **changes** to the **forwarding databases as a result**." (col. 5, line 8-41).

Thus, Pelissier teaches "determining whether a component was previously in a location, configuring the component using previously stored configuration information for the component if the component was previously in the location, or configuring the component without the previously stored configuration information if the component was not previously in the location."

Claims 9, 23 and 27:

Appellant's argument:

"With regard to independent claim: 9, 23 and 27, Pelissier does not teach determining if there is stored configuration information present in a component, determining whether changes to a configuration of the component are present and if so, updating the changes to the stored configuration information in the component."

Examiner's response:

As stated in the steps for explanation of claims 1, 11, 15 and 25, Pelissier clearly discloses in col. 14, line 24-27, "**The new or updated forwarding database is carried in the Data field 434 (FIG. 4) of the management cell.**"

Pelissier discloses in col. 11, line 11-58, "**Cell 400** also includes a Common Object Descriptor (COD) 428 which identifies the data object which will be operated on in the target device as specified by the command. Thus, the **COD identifies the**

collection of data (i.e., the data object) which will be queried or updated in the target device." , "All of this information is stored in a device or switched and may be queried or updated by specifying the object using the appropriate COD. Some data objects in a device, such as the device's MAC address and the forwarding database, **can be both read (queried) or updated (written to).**", "The **new data used to update** or initialize a data object in a target device is provided in the Data field 434."

"Likewise, a central network manager 150 can read or query a device's forwarding database using the Get( ) command and specifying the FDB COD, and **update or initialize a device's forwarding database** using the Set( ) command and the FDB COD **(providing the updated forwarding database in the Data field 434 of the management cell).** A wide variety of commands and CODs may be used to perform many types of management functions on different data objects in a device. Some examples have been described above, but the present invention is not limited to these examples."

"Thus, using the FDB COD and a specific number for the COD_IDX, the central network manager 150 can query or update a single entry in a device's forwarding database."

Also, as stated above, Pelisssier's teachings in col. 12, line 52-63 is substantiated by col.13, line 1-12, in order to understand how Pelissier teaches "obtaining current configuration information responsive to a power cycle.", wherein Pelissier states "Rather, the central network manager 150 is responsible for discovering the topology of the network, assigning MAC addresses to each device, generating

forwarding databases for each device, and then downloading or providing the forwarding database to each device for storage. In addition, the network topology can change when devices or communication links are added, removed or relocated, when communication links or devices fail, etc. As such, the central network manager 150 may periodically rediscover the network topology, reassign MAC addresses to devices, and generate updated forwarding databases for each device based on the new network topology." (".")

Additionally, Pelissier teaches in col. 5, line 8-41, "Directed Routing Directed routing provides a hybrid method of specifying the route of a cell that addresses the limitations stated above. A directed routed cell may be routed using destination address routing, explicit routing, or a combination of the two.

The destination address routing may be used for the majority of the cells once the network has been configured and is operational. In this way, the communicating devices are freed from the tasks of maintaining routes. Furthermore, cells transition the network more efficiently since forwarding decisions may be made after examining only a small portion of the cell, i.e., the destination address.

An explicit routing mechanism is provided for network configuration, initialization (e.g., assigning network addresses to switches or devices) or re-initialization, fault detection or other circumstances. This greatly simplifies the determination of network topology within a network whose forwarding databases have not been configured or when the databases are in an unknown state. Explicit routing can be used by the central network manager 150 to forward management cells throughout an unconfigured

or partially unconfigured network 100. A mechanism is also provided to easily generate a return route. Thus, other devices in the network can easily generate return messages to the central network manager 150. (determining if there is stored configuration information present in a component")_determining whether changes to a configuration of the component are present and if so, updating the changes to the stored configuration information in the component.")

The **two methods** can be combined to **provide** efficient **means** of **initializing** devices in the network, **detecting faults** in the network, of **detecting** topology **changes,** and to **make** appropriate **changes** to the **forwarding databases as a result**." (col. 5, line 8-41)

Thus, Pelissier teaches "determining if there is stored configuration information present in a component")_determining whether changes to a configuration of the component are present and if so, updating the changes to the stored configuration information in the component." (col. 5, line 8-41).

B. GROUND OF REJECTION 2 (Claims 11-14)

Claims 11-14:

Appellant's argument:

"However, nowhere in Shah is there any teaching or suggestion regarding obtaining current configuration information from a set of components in a network computing system in response to a power cycle, comparing the current configuration information to stored configuration information for the set of components, or updating the stored configuration information if a difference is present in the comparison."

"Since neither reference teaches these features, any alleged combination of he references still would not teach these features. Therefore, the invention as recited in claim 11 is not obvious in view of the alleged combination of Pelissier and Shah."

Examiner's response:

The reference Pelissier is cited to teach the argued claim limitations as explained above for claims 1, 11, 15 and 25.

The reference Shah is cited to provide in it's Fig. 4, a communication adapter connected to bus system which allows the communication to "NGIO fabric 100'"which is multistage switch of Fig. 2, as indicated in col. 3, line 49-57. Thus Shah provides the mechanism for communications to various types of computer networks such as LAN, CAN, MAN, GAN, SAN and many more stated in col. 2, line 31-55 as previously stated in the Office Action.

Also, In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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